



## SEQUENCE LISTING

APR 15 2002

TECH CENTER 1600/2900

RECEIVED

<110> Madsen, Soren  
Vrang, Astrid  
Bredmose, Lars  
Ravn, Peter  
Glenting, Jacob  
Johnson, Mads Gronvald  
Israelsen, Hans

#8

<120> REGULATION OF PROMOTER ACTIVITY IN CELLS

<130> 54320.000010

<140> US 09/982,532

<141> 2001-10-19

<160> 10

<170> PatentIn version 3.1

<210> 1

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Cy5 labelled ISS1.F1 primer

<400> 1

ggaacgctct tcggattttc ggtatc

26

<210> 2

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Cy5 labelled ISS1.R1 primer

<400> 2

gttcattgat atatcctcgc tgtc

24

<210> 3

<211> 899

<212> DNA

<213> Lactococcus lactis

<400> 3

atagtgcgcc agcagttgta attgtttgga taatatacta tcttattcac ggtaaaccac

60

aaaaatcaag ctctgaagtt tgatttaaata gatttacata aaacatgtta taataaagg

120

gttacagccc tgtatatggc gaaataaatg aataaaaaat agcgagtaga tgagttttaa

180

aatgaaagaa atggcaaacg taaacattga atatctaata aatacactgg aacaaaaaaa

240

agtgagtgtt gtaacacgca aaaaacatag ttatatcatg tatcaaggga ttgaatcaga

300

atatatctat gtactcaaag atggtgtagc gaagattagc aatatttttaa gagatgggtcg 360  
 tgaatttaat attgcttatg ttgcggagcc agactttgtt tctttattgg aagagaaaca 420  
 aaacgatgga atttcagcat tatttaatgt acgaattgag tctccaacag ccagttttta 480  
 caaaatttca cgcagtgatt tttggaattg gggttcgtgag gatttgaatt tattcagagt 540  
 tgttgatgac ttttataaac gaagactagc acttaattta gaaattcttc aaaagatgac 600  
 aatcaatggt aagaagggag cggtttgccg ttgccttcac agtttgattg atgatttcgg 660  
 aataagaaaa aaagatggaa ttctgattga ttttaccgtc actaatgaag atattgcagg 720  
 tttttgtggt attttacac gaaatagtgt taaccgtatt cttcatgatt taaaggatga 780  
 aaaagtaatt ggagtgattg ataataaaat tatgatttat aatcctcaat acttagaaga 840  
 atatatagtg taatataaat aaataaaaaa gctactttta gtagcttttt tgctataat 899

<210> 4  
 <211> 227  
 <212> PRT  
 <213> Lactococcus lactis

<400> 4

Met Ser Phe Lys Met Lys Glu Met Ala Asn Val Asn Ile Glu Tyr Leu  
 1 5 10 15

Ile Asn Thr Leu Glu Gln Lys Lys Val Ser Val Val Thr Arg Lys Lys  
 20 25 30

His Ser Tyr Ile Met Tyr Gln Gly Ile Glu Ser Glu Tyr Ile Tyr Val  
 35 40 45

Leu Lys Asp Gly Val Ala Lys Ile Ser Asn Ile Leu Arg Asp Gly Arg  
 50 55 60

Glu Phe Asn Ile Ala Tyr Val Ala Glu Pro Asp Phe Val Ser Leu Leu  
 65 70 75 80

Glu Glu Lys Gln Asn Asp Gly Ile Ser Ala Leu Phe Asn Val Arg Ile  
 85 90 95

Glu Ser Pro Thr Ala Ser Phe Tyr Lys Ile Ser Arg Ser Asp Phe Trp  
 100 105 110

Asn Trp Val Arg Glu Asp Leu Asn Leu Phe Arg Val Val Asp Asp Phe  
 115 120 125

Tyr Lys Arg Arg Leu Ala Leu Asn Leu Glu Ile Leu Gln Lys Met Thr

130

135

140

Ile Asn Gly Lys Lys Gly Ala Val Cys Ala Cys Leu His Ser Leu Ile  
 145 150 155 160

Asp Asp Phe Gly Ile Arg Lys Lys Asp Gly Ile Leu Ile Asp Phe Thr  
 165 170 175

Val Thr Asn Glu Asp Ile Ala Gly Phe Cys Gly Ile Ser Thr Arg Asn  
 180 185 190

Ser Val Asn Arg Ile Leu His Asp Leu Lys Asp Glu Lys Val Ile Gly  
 195 200 205

Val Ile Asp Asn Lys Ile Met Ile Tyr Asn Pro Gln Tyr Leu Glu Glu  
 210 215 220

Tyr Ile Ser  
 225

<210> 5  
 <211> 227  
 <212> PRT  
 <213> Lactococcus lactis  
 <400> 5

Met Ser Phe Lys Met Lys Glu Met Ala Asn Val Asn Ile Glu Tyr Leu  
 1 5 10 15

Ile Asn Thr Leu Glu Gln Lys Lys Val Ser Val Val Thr Arg Lys Lys  
 20 25 30

His Ser Tyr Ile Met Tyr Gln Gly Ile Glu Ser Glu Tyr Ile Tyr Val  
 35 40 45

Leu Lys Asp Gly Val Ala Lys Ile Ser Asn Ile Leu Arg Asp Gly Arg  
 50 55 60

Glu Phe Asn Ile Ala Tyr Val Ala Glu Pro Asp Phe Val Ser Leu Leu  
 65 70 75 80

Glu Glu Lys Gln Asn Asp Gly Ile Ser Ala Leu Phe Asn Val Arg Ile  
 85 90 95

Glu Ser Pro Thr Ala Ser Phe Tyr Lys Ile Ser Arg Ser Asp Phe Trp  
 100 105 110

Asn Trp Val Arg Glu Asp Leu Asn Leu Phe Arg Val Val Asp Asp Phe  
 115 120 125

Tyr Lys Arg Arg Leu Ala Leu Asn Leu Glu Ile Leu Gln Lys Met Thr  
 130 135 140

Ile Asn Gly Lys Lys Gly Ala Val Cys Ala Cys Leu His Ser Leu Ile  
 145 150 155 160

Asp Asp Phe Gly Ile Arg Lys Lys Asp Gly Ile Leu Ile Asp Phe Thr  
 165 170 175

Val Thr Asn Glu Asp Ile Ala Gly Phe Cys Gly Ile Ser Thr Arg Asn  
 180 185 190

Ser Val Asn Arg Ile Leu His Asp Leu Lys Asp Glu Lys Val Ile Gly  
 195 200 205

Val Ile Asp Asn Lys Ile Met Ile Tyr Asn Pro Gln Tyr Leu Glu Glu  
 210 215 220

Tyr Ile Ser  
 225

<210> 6  
 <211> 237  
 <212> PRT  
 <213> Bacillus licheniformis

<400> 6

Met Asn Ile Ser Val Arg Lys Ser Asp Thr Asp Leu Leu Ser Asp Asp  
 1 5 10 15

Leu His His Leu Leu Glu Ser Ile Ser Thr Arg Arg Lys Ile Arg Gln  
 20 25 30

Asp Thr Phe Leu Phe Gln Glu Gly Met Asp Ala Glu Glu Leu Tyr Leu  
 35 40 45

Ile Gln Ser Gly Leu Val Gln Ile Gly Lys Leu Thr Ser Asp Gly Lys  
 50 55 60

Glu Leu Thr Leu Arg Met Cys Lys Lys Asn Asp Ile Val Gly Glu Leu  
 65 70 75 80

Thr Leu Phe Thr Glu Asp Ala Lys Tyr Met Leu Ser Ala Lys Ile Leu

85

90

95

Ser Asp Gly Glu Val Leu Val Ile Asn Lys Asp Lys Leu Glu Lys Glu  
 100 105 110

Leu Ile Gln Asn Gly Ala Leu Thr Phe Glu Phe Met Lys Trp Met Ser  
 115 120 125

Thr His Leu Arg Lys Ile Gln Ser Lys Ile Arg Asp Leu Leu Leu Asn  
 130 135 140

Gly Lys Lys Gly Ala Leu Tyr Ser Thr Leu Ile Arg Leu Ala Asn Ser  
 145 150 155 160

Tyr Gly Ile Thr Arg Ser Asp Gly Ile Leu Ile Asn Ile Val Leu Thr  
 165 170 175

Asn Gln Asp Leu Ala Lys Phe Cys Ala Ala Ala Arg Glu Ser Ile Asn  
 180 185 190

Arg Met Leu Ser Asp Leu Arg Lys Asn Gly Val Ile Ser Ile Glu Asp  
 195 200 205

Ser Gly Lys Ile Val Ile His Gln Ile Asn Tyr Leu Lys Arg Glu Ile  
 210 215 220

Asp Cys Glu Asn Cys Pro Leu Glu Ile Cys Asn Ile Asp  
 225 230 235

<210> 7  
 <211> 11  
 <212> DNA  
 <213> Lactobacillus lactis

<220>  
 <221> misc\_feature  
 <222> (6)..(6)  
 <223> n equals a, t, g or c

<400> 7  
 cmtgantcak g

11

<210> 8  
 <211> 11  
 <212> DNA  
 <213> Lactococcus lactis

<220>  
 <221> misc\_feature

<222> (6)..(6)  
<223> n equals a, t, g or c

<400> 8  
ttgatnatca a

11

<210> 9  
<211> 54  
<212> DNA  
<213> Lactobacillus lactis

<400> 9  
tagtaggatac cgaaaggagg cactcaaaat gagtttttaa atgaaagaaa tggc

54

<210> 10  
<211> 34  
<212> DNA  
<213> Lactobacillus lactis

<400> 10  
tagtaggatac cgaatatttc gatatacagc tgac

34